

Claims:

1. Process for the production of at least one solderable surface in selected solder regions and of at least one functional surface in function regions differing from the soldering regions on surfaces of copper structures on circuit carriers with the following sequential process stages:

- (a) a dielectric substrate provided with copper structures is prepared;
- (b) the solderable surfaces are created by depositing a solderable layer of metal;
- (c) a covering mask is formed that covers the solder regions and leaves the function regions uncovered;
- (d) the functional surfaces are created in the function regions and
- (e) the covering mask is cleared off.

2. Process according to claim 1, **wherein** the at least one solderable surface is made from at least one metal selected from the group comprising tin, silver, bismuth, palladium and their alloys.

3. Process according to one of the preceding claims, **wherein** the at least one solderable surface is formed by depositing at least one solderable layer of metal by means of chemical reduction or cementation.

4. Process according to claim 3, **wherein** the at least one solderable layer of metal is removed again prior to carrying out stage (d) of the process in the function regions.

5. Process according to claim 4, **wherein** the at least one solderable layer of metal is removed by means of an acid etch solution.

6. Process according to one of the preceding claims, **wherein** the at least one bondable surface is produced to serve as a functional surface.

7. Process according to one of the preceding claims, **wherein** the at least one functional surface is made of at least one metal, selected from the group comprising gold, palladium, silver and their alloys.

8. Process according to claim 7, **wherein**, for the purpose of producing the at least one functional surface, a basic layer is first applied, said layer being made from a metal selected from the group comprising nickel, cobalt and their alloys.

9. Process according to one of the preceding claims, **wherein**, for the purpose of producing the at least one functional surface, a layer comprising nickel is deposited first and a layer of gold is applied there onto.

10. Process according to one of the preceding claims, **wherein** the at least one functional surface is formed by the deposition of at least one functional layer by means of chemical reduction or cementation.

11. Process according to one of the preceding claims, **wherein** the covering mask is formed by performing the following steps:

(c1) application of a layer of photoresist,

(c2) exposure of the layer of photoresist with a model of the mask in such a manner that the function regions can be led bare in a subsequent development stage and

(c3) development of the exposed layer of photoresist.

12. Process according to one of the preceding claims, **wherein** the covering mask is formed by means of a screen printing process.

13. Process according to one of the preceding claims, **wherein** the circuit carriers provided with the copper surfaces are provided with a solder resist mask prior to carrying out step (b) of the procedure, the solder regions and the function regions remaining bare.

14. Circuit carrier with at least one solderable surface in selected solder regions and with at least

one functional surface suited for bonding in function regions that are different from the solder regions, the at least one solderable surface consisting of at least one metal selected from the group comprising tin, silver, bismuth, palladium and their alloys and that the at least one functional surface consists of gold.

15. Circuit carrier according to claim 14, **wherein** a layer containing nickel and thereupon a layer of gold are arranged in the function regions.